

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (currently amended) A pellicle comprising a pellicle frame and a pellicle film, wherein:

the pellicle generates a total weight of a volatile organic compound of to be detected is not more than 0.5 ppm or less in total with respect to based on the weight of the pellicle, the volatile organic compound being detected by collecting the volatile organic compound weight when an organic compound component generated from the pellicle is collected at a room temperature of 26°C for 24 hours under a nitrogen flow of 100 ml/min; adsorbing the collected volatile organic compound the organic compound component collected under the nitrogen flow is adsorbed by a porous polymer beads adsorbent based on 2,6-diphenyl-p-phenylene oxide; and analyzing a gas generated by heating the adsorbed volatile organic compound the adsorbed organic compound component is heated at 260°C for 15 minutes so that the volatile organic compound component is thermally desorbed desorpted from the adsorbent, and wherein:

when the pellicle is attached to a photo-mask and irradiated with ArF laser light to an amount of 100 J/cm², substantially no foreign matter is generated on the pellicle film and/or the photo-mask in a gas form, and the thus-generated gas is analyzed.

2. (currently amended) A method of manufacturing a pellicle comprising a pellicle frame and a pellicle film, the pellicle generating wherein a total weight of a volatile organic compound of to be detected is not more than 0.5 ppm or less in total with respect to based on the weight of the pellicle, the volatile organic compound being detected by collecting the volatile organic compound weight when an organic compound component generated from the pellicle is collected at

a room temperature of 26°C for 24 hours under a nitrogen flow of 100 ml/min;
adsorbing the collected volatile organic compound ~~the organic compound~~
~~component collected under the nitrogen flow is adsorbed~~ by a porous polymer
beads adsorbent based on 2,6-diphenyl-p-phenylene oxide;
and analyzing a gas generated by heating the adsorbed organic compound ~~component is heated~~ at
260°C for 15 minutes so that the volatile organic compound component is
thermally desorbed ~~desorbed~~ from the adsorbent, wherein the method
comprises a step of removing the volatile organic compound from the pellicle,
and wherein when the pellicle is attached to a photo-mask and irradiated with
ArF laser light to an amount of 100 J/cm², substantially no foreign matter is
generated on the pellicle film and/or the photo-mask in a gas form, ~~and the thus-~~
~~generated gas is analyzed,~~
— ~~wherein an act of removing the volatile organic compound from the pellicle~~
~~is carried out.~~

3. (currently amended) The method of manufacturing the pellicle according to
claim 2, wherein the volatile organic compound is removed from a member used
in the pellicle ~~an act of removing the volatile organic compound from a member~~
~~used for manufacturing the pellicle is carried out.~~

4. (currently amended) A pellicle-fed photo-mask provided with a pellicle
comprising a pellicle frame and a pellicle film being mounted thereon, the pellicle
generating wherein a total weight of a volatile organic compound of to be
detected is not more than 0.5 ppm or less in total with respect to ~~based on the~~
weight of the pellicle, the volatile organic compound being detected by collecting
the volatile organic compound ~~weight when an organic compound component~~
~~generated from the pellicle is collected~~ at a room temperature of 26°C for 24
hours under a nitrogen flow of 100 ml/min;
adsorbing the collected volatile
organic compound ~~the organic compound component collected under the~~
~~nitrogen flow is adsorbed~~ by a porous polymer beads adsorbent based on 2,6-
diphenyl-p-phenylene oxide;
and analyzing a gas generated by heating the

adsorbed volatile organic compound component is heated at 260°C for 15 minutes so that the volatile organic compound component is thermally desorbed desorbed from the adsorbent, wherein when the photo-mask to which the pellicle is attached is irradiated with ArF laser light to an amount of 100 J/cm², substantially no foreign matter is generated on the pellicle film and/or the photo-mask in a gas form, and the thus-generated gas is analyzed.

5. (currently amended) A method of manufacturing a semiconductor device using a photo-mask provided with in a state that a pellicle comprising a pellicle frame and a pellicle film is mounted thereon, the pellicle generating a total weight of a volatile organic compound of to be detected is not more than 0.5 ppm or less in total with respect to based on the weight of the pellicle, the volatile organic compound being detected by collecting the volatile organic compound weight when an organic compound component generated from the pellicle is collected at a room temperature of 26°C for 24 hours under a nitrogen flow of 100 ml/min; adsorbing the collected volatile organic compound the organic compound component collected under the nitrogen flow is adsorbed by a porous polymer beads adsorbent based on 2,6-diphenyl-p-phenylene oxide; and analyzing a gas generated by heating the adsorbed volatile organic compound the adsorbed organic compound component is heated at 260°C for 15 minutes so that the volatile organic compound component is thermally desorbed desorbed from the adsorbent, wherein when the photo-mask to which the pellicle is attached is irradiated with ArF laser light to an amount of 100 J/cm², substantially no foreign matter is generated on the pellicle film and/or the photo-mask in a gas form, and the thus-generated gas is analyzed.

6. (currently amended) A method of using a pellicle for preventing dust in a process of manufacturing a semiconductor device, wherein the pellicle comprising a pellicle frame and a pellicle film, and the pellicle generating a total weight of a volatile organic compound of to be detected is not more than 0.5 ppm or less in total with respect to based on the weight of the pellicle, the volatile

organic compound being detected by collecting the volatile organic compound
~~weight when an organic compound component generated from the pellicle is~~
~~collected at a room temperature of 26°C for 24 hours under a nitrogen flow of~~
~~100 ml/min;~~ adsorbing the collected volatile organic compound ~~the organic~~
~~compound component collected under the nitrogen flow is adsorbed by a porous~~
~~polymer beads adsorbent based on 2,6-diphenyl-p-phenylene oxide;~~ and
analyzing a gas generated by heating the adsorbed volatile organic compound
~~the adsorbed organic compound component is heated at 260°C for 15 minutes~~
~~so that the volatile organic compound component is thermally desorbed~~
~~desorbed from the adsorbent, wherein when the pellicle is attached to a photo-~~
~~mask and irradiated with ArF laser light to an amount of 100 J/cm², substantially~~
no foreign matter is generated on the pellicle film and/or the photo-mask in a gas
~~form, and the thus-generated gas is analyzed.~~

7. (new) The pellicle according to claim 1, wherein the volatile organic compound is an aliphatic hydrocarbon compound, a ketone-type compound, an ester-type compound, an alcohol, and an aromatic type compound.
8. (new) The method of manufacturing a pellicle according to claim 2, wherein the volatile organic compound is an aliphatic hydrocarbon compound, a ketone-type compound, an ester-type compound, an alcohol, and an aromatic type compound.
9. (new) The photo-mask provided with a pellicle according to claim 4, wherein the volatile organic compound is an aliphatic hydrocarbon compound, a ketone-type compound, an ester-type compound, an alcohol, and an aromatic type compound.
10. (new) The method of manufacturing a semiconductor device using a photo-mask according to claim 5, wherein the volatile organic compound is an aliphatic

hydrocarbon compound, a ketone-type compound, an ester-type compound, an alcohol, and an aromatic type compound.

11. (new) The method of using a pellicle for preventing dust in a process of manufacturing a semiconductor device according to claim 6, wherein the volatile organic compound is an aliphatic hydrocarbon compound, a ketone-type compound, an ester-type compound, an alcohol, and an aromatic type compound.

12. (new) The pellicle according to claim 1, wherein the pellicle is made by heating to 40 °C to 100 °C under a gas flow of 1 ml/min to 1,000 ml/min and under a reduced pressure environment of 0.001 Pa to 55,000 Pa to remove volatile organic compounds.

13. (new) The pellicle according to claim 1, wherein materials of the pellicle are heated before assembling the pellicle to 40 °C to 200 °C under a gas flow of 1 ml/min to 1,000 ml/min and under a reduced pressure environment of 0.001 Pa to 55,000 Pa to remove volatile organic compounds.

14. (new) The pellicle according to claim 1, wherein an inside wall coating agent and a photo-mask adhesive coated on a bottom of the pellicle frame are heated before assembling the pellicle to 100 °C to 200 °C under a gas flow of 1 ml/min to 1,000 ml/min and under a reduced pressure environment of 0.001 Pa to 55,000 Pa to remove volatile organic compounds.